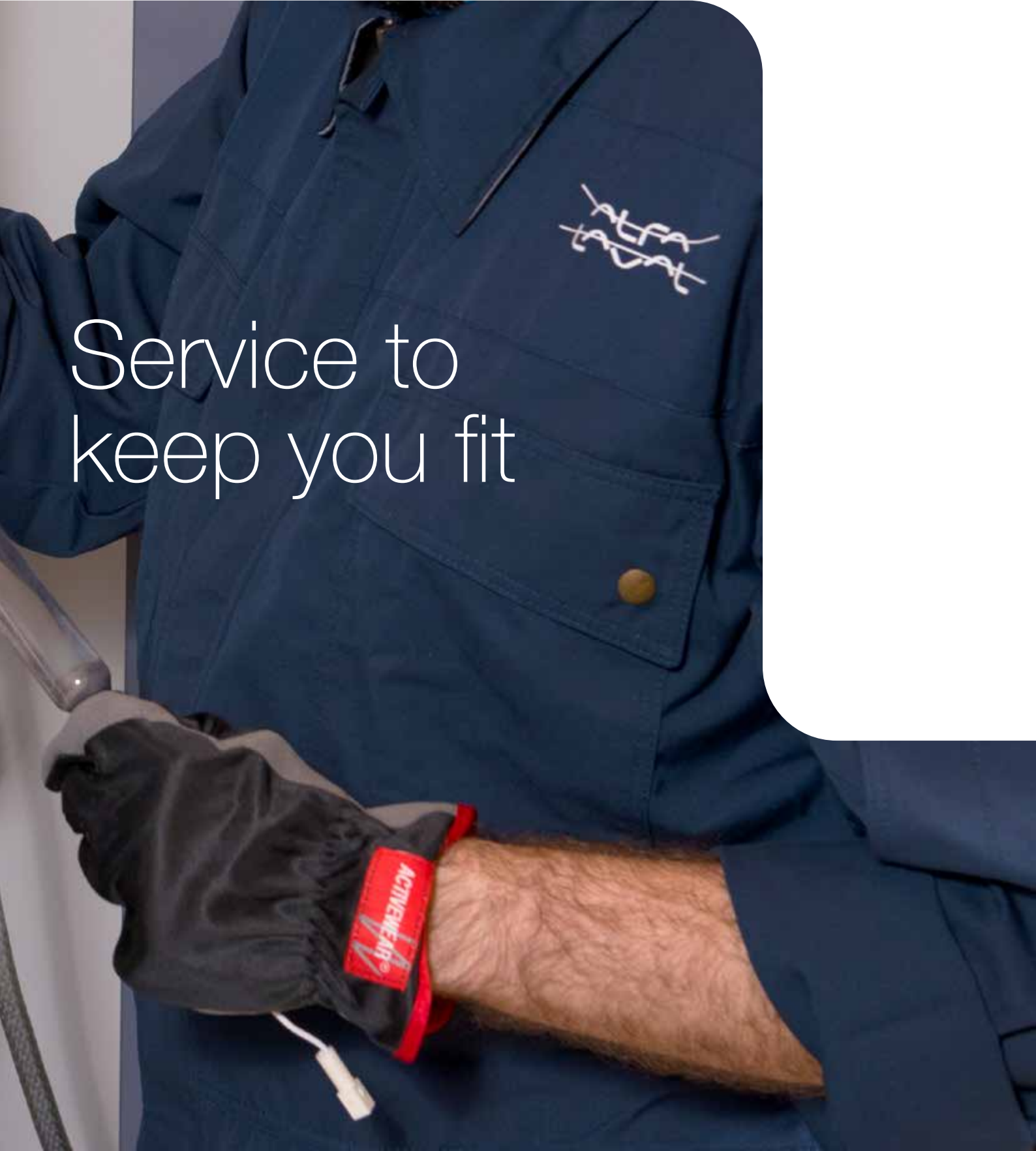


The Alfa Laval PureBallast
Compliance Service Package



Service to
keep you fit



The Alfa Laval PureBallast Compliance Service Package



One package with all that you need

- For compliance
- For economy
- For peace of mind

The PureBallast Compliance Service Package includes all the service components described below. Together, they ensure healthy operations and peace of mind – with a predictable preventive maintenance cost.

Planning

Staying compliant means staying on top of things. We keep track of the vessel's service schedule and communicate with you when the time comes, arranging for PureBallast service to occur in the most suitable port. We take care of the organization, parts and execution, as well as rescheduling if changes make it necessary. You receive a service report that documents all we do.

Travel time

When we're the ones arranging for PureBallast service, it's only natural that we assume the associated travel costs. Our experts' travel is free of charge when service occurs in dedicated ports, i.e. Singapore, Dubai, Rotterdam/Antwerp, Panama and Houston. If you require another port, the expenses are charged at cost.

Calibration

The instruments that ensure compliance need to be calibrated and certified according to legislation. Every year we calibrate the pressure sensors in situ and exchange the temperature switch(es) and transmitter(s) for newly calibrated items. We also calibrate the flow meter in situ and the UV sensor(s) by exchange, either every year (USCG) or every second year (IMO).



What's actually demanded

You might not be aware just how much annual service work is needed to maintain compliance with ballast water treatment legislation. The PureBallast Compliance Service Package takes care of it all, with almost no effort required from you.

USCG: Needed for compliance with final VGP 2013

- Annual system checks – all components, alarm log, software update
- Annual system tests – all functions
- Annual calibration – sensors for UV, flow, temperature and pressure
- Annual water sampling for bacteria
- Annual crew training

IMO: Needed for compliance with MEPC.279(70)

- Annual system checks – all components, alarm log, software update
- Annual system tests – all functions
- Annual calibration – pressure sensors and temperature switches/transmitters
- Bi-annual calibration – flow meter and UV sensors

Condition Audit

Alfa Laval Condition Audits let you know the actual condition of your PureBallast system. We perform checks of your system and its components, looking for any signs of wear and fatigue that might prevent safe and correct operation. This helps reduce operating costs by ensuring that part changes occur during a planned stop – rather than an unplanned one.

Performance Audit

Alfa Laval Performance Audits ensure that your PureBallast system is operating cost-effectively and according to its type approval. We test all system functions, identifying any degradation in performance and the corrective actions needed. Our recommendations may include equipment adjustments or suggestions for optimizing operation and maintenance.

Crew training

While our experts are on your vessel, they provide PureBallast operational training for the crew on board. This ensures that all crew members have updated knowledge of system operating principles and processes, as required by legislation. When crews are trained regularly, you can be sure they will operate and care for the system according to best practices.

What you really want

Naturally, you have to comply with the demands of legislation. But your compliance concerns will always be related to your business interests:

- Uninterrupted, profit-making operations
 - Avoiding complications with authorities
 - Avoiding fines and off-hire
- Focus on core business
 - Stable, smooth operation by trained crews
 - Minimal planning and effort to ensure compliance
- Service economy
 - Predictable – and ideally fixed – service costs
 - Reduced use of spare parts and associated costs
- Peace of mind
 - Minimized system downtime
 - Reduced worries over non-compliance
 - Extended warranty period

Those interests are exactly what the PureBallast Compliance Service Package protects.

Economy built on certainty

The PureBallast Compliance Service Package is exactly that: a package. The services it contains complement each other, working together to create peace of mind. You can learn more about its components below.

With one package, you get everything you need to be certain of compliance. What's more, that certainty comes at a minimal fee.



Filter inspection

By removing larger organisms and particles from the ballast water prior to treatment, your PureBallast system's filter ensures high UV performance and maximum energy efficiency – even in highly sedimented waters. We take a close look at your filter to make sure it's working well, arranging for additional maintenance if needed.

Water sampling (bacteria)

In waters where the USCG rules apply, the 2013 VGP requires annual water sampling and analysis for a number of biological indicator bacteria. (IMO doesn't currently require annual water sampling.) We ensure that samples are taken correctly and handle their analysis by an independent laboratory, so that you can be certain of the results.

Alarm log analysis

For both troubleshooting and ongoing optimization, we look deep into your PureBallast system's alarm log. By identifying frequent alarms, alarm patterns and trends, our experts can make conclusions and suggestions that reduce the number of alarms and help maximize system uptime.



For healthy
peace of mind

Ballast water treatment involves more than installing a system and switching it on. To keep you compliant, ongoing effort is needed. The regulations demand not only discharge performance, but also system inspections, function checks, calibrations and crew training to ensure it.

With the PureBallast Compliance Service Package, our experts take responsibility for the health of your Alfa Laval PureBallast system – taking work and worry off your shoulders.



This is Alfa Laval

Alfa Laval is active in the areas of Energy, Marine, and Food & Water, offering its expertise, products, and service to a wide range of industries in some 100 countries. The company is committed to optimizing processes, creating responsible growth, and driving progress – always going the extra mile to support customers in achieving their business goals and sustainability targets.

Alfa Laval's innovative technologies are dedicated to purifying, refining, and reusing materials, promoting more responsible use of natural resources. They contribute to improved energy efficiency and heat recovery, better water treatment, and reduced emissions. Thereby, Alfa Laval is not only accelerating success for its customers, but also for people and the planet. Making the world better, every day. It's all about *Advancing better™*.

How to contact Alfa Laval

Contact details for all countries are continually updated on our web site. Please visit www.alfalaval.com to access the information.

